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ABSTRACT

The benefits of Internet activities for teaching of foreign languages, for example the use of e-mail as a non-threatening environment for language output, and using the Web to integrate language and culture, have become apparent in the last few years. This paper describes WebCT as a user-friendly integrated Internet environment for the teaching of foreign languages. WebCT (Web Course Tools), created at the University of British Columbia is a multi-faceted program that allows educators to customize an existing suite of tools to their individual needs and content. The different tools WebCT has to offer are assembled in a single password protected area; they include, but are not limited to: e-mail, bulletin board, chat rooms, and quizzes. These tools can be categorized in four areas: Content (paths, links), Communication (bulletin board, e-mail, chat rooms), Testing/Assessment (quizzes, self-test) and Course Management (calendar, student management, My Record). This paper briefly introduces the main tools, describes possible applications in computer-assisted language learning (CALL), and discusses their potential and limitations. The role of the teacher in WebCT is examined in terms of course development as well as in terms of different teaching modes (supplemental or self-contained). WebCT does not require instructors to become programmers, but enables them to create course materials and design their course on their own. WebCT is generally user-friendly for teachers and students, and especially easily understood from the student's perspective. The role of the student also depends upon the different teaching modes as well as whether the computer is used as a tutor or tool. Integrating the Internet into the foreign language classroom encourages students who are less likely to participate in class. It can also create possibilities for learners who would otherwise be excluded from foreign language learning. WebCT brings second language learning home to students. (Author)

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# To Integrate Your Language Web Tools – CALL WebCT

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**Abstract**

The benefits of Internet activities for teaching of foreign languages have, for example the use of e-mail as a non threatening environment for language output, and using the Web to integrate language and culture, have become apparent in the last years. This paper describes WebCT as a user-friendly integrated Internet environment for the teaching of foreign languages. WebCT (Web Course Tools), created at the University of British Columbia is a multi-faceted program that allows educators to customize an existing suite of tools to their individual needs and content. The different tools WebCT has to offer are assembled in a single password protected area; they include, but are not limited to: e-mail, bulletin board, chat rooms, and quizzes. These tools can be categorized in four areas: Content (paths, links), Communication (bulletin board, e-mail, chat rooms), Testing/Assessment (quizzes, self-test) and Course Management (calendar, student management, My Record). This paper briefly introduces the main tools, describes possible applications in CALL and discusses their potentials and limitations. The role of the teacher in WebCT is examined in terms of course development as well as in terms of different teaching modes (supplemental or self-contained). WebCT does not require instructors to become programmers, but enables them to create course materials and design their course on their own. WebCT is generally user-friendly for teachers and students, and especially easily understood from the student's perspective. The role of the student also depends upon the different teaching modes as well as whether the computer is used as a tutor or as a tool. Integrating the Internet into the foreign language classroom encourages students who are less likely to participate in class. It can also create possibilities for learners who would otherwise be excluded from foreign language learning. WebCT brings second language learning home to the students.

**Key words**: CALL, Internet, WebCT, online communication, online assessment

## 1. Introduction

Computer Assisted Language Learning is not a homogeneous field, since the computer can be used to assist language learning in a variety of ways, due to the many ways modern computers can be applied. Levy traces the development of CALL from its beginnings in the 1960s and 70, via the improvements caused by the more wide spread use of microcomputers in the 1980, to the dramatic introduction of the use of the Internet in the 1990s (Levy 1996). Today there is a large variety of computer applications from which developers of CALL materials and CALL teachers can choose; for examples floppies, CD-ROM, multimedia, MOOs, MUDs and other Internet applications.

This is a descriptive paper dealing with Internet based CALL, one of the newest and probably most promising ways to use computers in language learning. Internet applications are capable of integrating a number of functions that have so far been separate from each other into one coherent learning environment. WebCT (Web Course Tools) is an online course management application that allows for the integration of course organization, communication, content and assessment/exercises. There are several products on the market, such as Top Class, Real Education and others that offer a similar package, but WebCT will be the focus of this paper, based on the fact that Idaho State University's Instructional Technology Resource Center

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has chosen this product as their supported program and I have the most experience with this particular program (Homepage for competing products are listed in the reference section). The rest of section 1 gives a brief overview of WebCT. Section 2 introduces the main features of WebCT and their possible applications in CALL. Section 3 discusses the role of the teacher in the creation of WebCT materials and during the teaching process, and Section 4 examines the student's role in using WebCT.

WebCT was developed by Murray W. Goldberg in the Department of Computer Science at the University of British Columbia, with its first beta version in June of 1996. The currently version is 1.2, but the upgrade to 1.3 is planned for the end of August 1998. All a designer needs to use WebCT is a web browser (for example Netscape) with which to access the WebCT server, no special software needs to be installed. While a public welcome page can be created, access to the actual class is password protected so that only authorized students can access the information.

Licensing fees are reasonable compared to competitors offering comparable products; they are based on the number of student accounts (for example: a 12 months license for a total of 1600 students costs $1500; 3200 students for 12 months cost $ 1750). Due to the scope of this paper WebCT cannot be explained to the fullest extent; the focus is on its use in CALL. For more information about WebCT refer to the WebCT homepage at: http://homebrew.cs.ca/webct/. Support for administrators and instructors using WebCT is substantial, and instructors' and administrators' suggestions are taken very seriously.

## 2. The Main Tools of WebCT

| **Contents** | **Communication** | **Testing/Exercises** | **Course Management** |
|---|---|---|---|
| *Path:* A sequence of hierarchically ordered pages of content that are linked to additional tools | *Bulletin Board:* Forums for asynchronous, public, threaded discussion | *Quizzes:* Graded exercises and tests, as well as anonymous surveys | *Calendar:* Identify the chronological order of the course, e.g. due dates, HW, etc. |
| *Links:* Outside links can be used to integrate current information | *E-mail:* Asynchronous, private communication | *Test:* Ungraded review questions with immediate feedback | *Student Management:* Keeps students' record for the instructor |
| | *Chat:* Synchronous, public communication | | *My Record:* Allows student to review his or her performance and grade. |

Table 1: Main Tools of WebCT

WebCT offers a whole suite of tools that can be customized to the needs of the instructor. The main tools and their application in a Second Language Class are explained in this section. WebCT is designed in a way that promotes the feeling of a coherent integrated learning environment. Most of the tools can be accessed from the homepage of any particular class, but links and navigation buttons make it possible to navigate the whole "classroom" fast and efficiently. Overall color and button style settings allow the instructor to give each class an individual look and feel, without compromising the coherent nature of the learning environment.

The main tools in WebCT are grouped in four categories that are essential to teaching in general and teaching a foreign language in particular. The four categories are: contents, communication, testing/exercises, and course management. Each of these categories will be explained further in the following subsections.

**2.1 Contents**

In the context of WebCT, the content designates what traditional instruction refers to as the textbook and/or grammar. Texts for reading comprehension, cultural information and exemplifying grammatical contexts traditionally form the core of a language class. Within WebCT, units and sections are organized into one or more "paths" that allow for linear as well as non-linear navigation through the content.

Several tools are connected to the content area within WebCT, so that a particular page discussing a particular grammatical concept can be linked to one or several exercises that allow the students to practice the skills and get immediate feedback on their understanding of the material. The instructor can assign these exercises as homework and thus gain an understanding of the skill level of all the students without having to collect and correct homework every day of class. Self-test questions can be used to allow the student to determine whether or not they have mastered the concept, or whether they should consider doing voluntary exercises. If the content in question is a reading comprehension test, the instructor can link new vocabulary words to a searchable glossary to facilitate the reading process and alert students of new words. If a discussion of the material is desired, a particular page of content can be linked to a designated forum in the bulletin board (more on bulletin board in section 2.2). Foreign language textbooks oftentimes tend to be behind the current state of the target culture due to the time it takes to create and publish a textbook. Cultural information on the Internet can easily be kept up-to-date by linking to outside sites that are regularly updated, such a newspapers. The instructor also has the ability to change specific pages in the content without changing the class as a whole. Images, sound files and movies can also easily be added to the content section of WebCT, making it more stimulating.

These "bells and whistles" go beyond what a regular textbook can accomplish in the presentation of grammar and texts. As is the case with all the mentioned tools, they can be used both in supplemental materials of a traditionally taught class, as well as in self-contained online course.

**2.2 Communication**

Most language teachers today agree that the main purpose of language learning is the ability to communicate. "The communicative approach is the current preferred philosophy of language learning and teaching" (Levy, 97) WebCT offers three distinct channels of communication to students and teachers: a bulletin board, e-mail and chat rooms. All of these tools are writing and listening, so far it is not possible to verbally communicate with the

computer. However, it is possible that an improvement in written communication (especially more spontaneous writing like e-mail and chat) can actually increase verbal communication skills. Written communication also has a very important advantage that has been widely recognized. Students are often afraid to speak the foreign language they are learning in front of their peers. Communication via e-mail, bulletin board and chat rooms is non-threatening and therefore encourages students to use the target language rather than to shy away from using it at all (Levy, 97).

One problem with using these text based communication tools is the use of special characters that might be required for the proper spelling of words in the target language. However, students can either change their keyboard options, or where that might not be possible due to lab configurations, students can be taught to configure special keystrokes for special characters.

### 2.2.1 Bulletin Board

The bulletin board provides asynchronous discussion forums that can be public for all the people in the class or private to a specified subset of students. Postings can be created by the instructor as well as the students and the messages are organized in discussion threads. The treads enable participants to start a new thread, respond to a comment made by another member of the forum, respond to a response of another participant and so on. This could be a good way to implement student introductions in the target language. Even though the postings show the name of its author, the fact that students have time to prepare their postings and do not have to communicate face to face increases the comfort level of students who might not otherwise participate in class. As mentioned in section 2, forums can also be designated to a particular page of the content. Discussions that might otherwise have to be cut short can be continued in the bulletin board and every comment can be communicated. Another way to use the bulletin board effectively is to create of private forums for groups of students that allow them to communicate in the target language with a smaller subset of fellow students. This kind of group work also allows the instructor to get a feeling for the level of cooperative learning in the groups.

### 2.2.2 E-mail

The e-mail tool within WebCT works in many respects similar to the bulletin board, except that all the messages are private. Students can only communicate with other students who are in their course and with the instructor. The fact that e-mail messages are generally more informal than for example letters makes this a useful tool for learners of a foreign language. It does not put as much pressure on their level of grammatical correctness and appropriate register; exchanging e-mails also fosters cooperative learning. In addition to that, e-mail connects people all over the world, facilitating real-world communication with native speakers and/or learners all over the world. E-mail within WebCT is more convenient than "regular" e-mail, since all the students in the class are listed with their log in names in a drop down menu, which does away with the need to remember, often obscure, e-mail addresses.

### 2.2.3 Chat Rooms

Chat rooms allow real-time communication with other people who are in the room. WebCT features six chat rooms in every course. One chat room allows communication with any user of WebCT who is "in" that chat room at that time. Another chat room is designated for all the students who are signed up for a particular class. The last four chat rooms can be labeled for

different groups to use them. Logs are kept on the last four rooms and the instructor can access these logs to monitor the discussion. Communication in chat rooms resembles "normal speech" even more so than e-mail messages and students can focus on communicating with each other in the foreign language knowing that their grammar might not be perfect and that is does not need to be. Native speakers can also be invited to participate in informal chat sessions to give the students access to "real language". The fact that logs are kept enables the instructor to keep records of the students' ability in spontaneous foreign language use. Another way to effectively use the chat rooms is to have online office hours that encourage students to use the target language.

**2.3 Assessment/Exercises**

Even though assessment and exercises can be very different in the students' and the teachers' mind, in the context of WebCT they are dealt with in much the same ways. Exercises are viewed as preparation for the assessment. Homework assignments make up a large part of students' learning time, and grading these assignments takes up a lot of the teacher's time. WebCT can help the students to get the feedback they need and deserve, without long delays and it frees the teacher's time for one-on-one or group communication, as well as provide him or her with insight into all the students' progress and problems.

Quizzes in WebCT can contain multiple choice, matching, short answer, paragraph or calculated questions. Calculated questions do not apply to language classes, so only the first four question types will be discussed here. Except for the paragraph questions, all the question types are computer corrected, so that the instructor only has to input the question and the correct answer once and the students can then do the exercises or exams and receive immediate feedback on their performance. Paragraph questions have to be corrected by the instructor and feedback is therefore delayed until that time. This is of course an area that is of interest to Natural Language Processing and where we might see vast improvements in the future. As for now any open ended questions or those that have many different correct answers have to be corrected by the instructor.

Listening comprehension can be tested by adding sound files and or videos to questions. The students can then watch and/or listen to these files as many times as they want, before they answer the respective questions. Dictations can be performed in the same manner, with students filling in a short answer question to receive instant feed back. The only problem with short answer questions is that they are not case sensitive, which is often critical in language learning.

As mentioned earlier, individual quizzes/exercises can be linked to individual pages of content; this facilitates navigation and offers the application in a timely manner. If a grammatical concept is explained in a page of content, that page could be linked directly to exercises that allow the student to work on this concept without having to navigate through several areas of the class. If all the questions in that respective quiz are computer corrected, the student can access the results and the correct answers immediately and go back to the grammar page for more review if necessary. Since question sets can be randomly created, the student could then take the same quiz again, but get a different set of questions.

**2.4 Course Management**

A big part of teaching a class is absorbed by simple, or not so simple, "housekeeping", such as taking role, checking homework assignments, answering individual questions, and explaining course procedures. Courses that are taught on the Internet require special measures to

keep in touch with the students and to keep records of progress, and workload. However, WebCT features a set of course management tools that makes it a lot easier for teachers and students to keep track of the progression of the class and to keep their records both in supplemental materials as well as in a self-contained course.

The instructor has to enter each student into the student management area, where a directory is created for that student. Whenever the student enters the password protected area of WebCT the computer keeps a log of all the activities. The instructor has then access to, for example, the number of hits of individual students, the first and last access, article read and posted on the bulletin board as well as grade information about each student. Keeping track of scores is facilitated by the fact that WebCT automatically creates a column for each quiz that is created within WebCT and transfers scores to the student management area. The instructor can then view the distribution of points for individual quizzes and create a calculated column to determine the overall scores.

While to some educators this might sound like "big brother is watching you", this kind of information is important to maintain rapport between the instructor and the students – especially for classes taught entirely online. The instructor can also make most of this information accessible to the students via the My Record Tool, which lets students view their performance in the class compared to the rest of the class; this includes highest and lowest scores, standard deviation and histograms. Students are generally interested in their own performance as well as where they are standing in regard to their classmates. The My Record tool offers puts this information at their fingertips, and traditional students as well as online students like that fact.

## 3. The Role of the Teacher

The role of the teacher in a WebCT based language class depends on a variety of factors such as teaching philosophy and style that are not immediately related to the use of WebCT, and those factors cannot be discussed here. In connection to WebCT the role of the teacher needs to be discussed in terms of the creation of course material, and the role the teacher assumes during the course of the class.

### 3.1 Creation of Course Material – educator vs. programmer

The role of the teacher in part depends on the philosophy adopted by the creators of the product used. Real Education, for example, does all the course design for the instructor who contributes the content itself. WebCT, on the other hand, as the name suggests, gives the instructor the tools to develop online courses or supplemental material with relative ease and take control of the design as well. The instructor is not placed in the programmer's position, that is to say, the instructor does not have to learn a complicated programming language. To develop a WebCT course, the designing instructor needs first of all a general familiarity with the Internet. However, since WebCT is Internet based and the language of the Internet is HTML, the instructor does need to create course materials in HTML. This task is facilitated by HTML conversion programs that are widely available. All in all, learning to use WebCT is more or less like learning to use a word processor or spreadsheet. WebCT offers a getting-started tutorial document, as well as on-line help and an interactive "quick-start" guide. The time needed to get a good working understanding of WebCT depends on the level of experience with HTML conversion, the Internet and other computer skills. At Idaho State University we have set up a series of three workshops (22 hours total) for faculty training. Most faculty members are then

prepared to input their materials into WebCT with occasional assistance from the ITRC. WebCT also supports a list serve that answers instructors' and administrators' questions.

### 3.2 During teaching the class – self contained vs. supplemental

The role of the teacher is necessarily influenced by the nature of the class, whether it is a self-contained Internet class, or supplemental material to face to face instruction. If used as supplemental materials, WebCT can open up time for more spoken communication during class by doing a lot of written communication outside of class. In this scenario the instructor mainly inputs information and exercises into WebCT and the students then use it as a tool according to their own needs without much teacher supervision. WebCT offers many communication tools, which need more involvement by the instructor in initializing and supervising bulletin discussion groups, and chat room communication.

Self-contained online classes require a lot more prior planning by the instructor, since students will most likely not progress at the same speed. In this case the teacher probably needs to actively seek out rapport with the student and be a more active communication partner, since there may or may not be any other students in the class. On the other hand, the instructor could aim for the class to be independent of teacher input, which, to me, does not seem possible in a foreign language class with the current technology.

## 4. The Role of the Student

The role of the student using WebCT to learn a language largely depends on the kind of online course that instructor has developed and it is not possible to examine all the possible roles that might result for students. However, basically different student roles depend on, again, whether the class is supplemental, or self-contained and whether students are expected to use the computer as a tool (the computer does not evaluate the students) or as a tutor (the computer replaces the instructor in some respect).

### 4.1 Supplemental vs. self-contained

WebCT as a supplemental tool generally requires students to follow along with the rest of the class (synchronous). Chat room communication requires students to set up times when to chat. Use of the bulletin board generally also goes along with the timely progression of the class and the students should check it on a regular basis. At the same time students are enabled to do their homework at different times and receive immediate feed back. Students can also focus on their individual strengths and weaknesses by doing additional grammar exercises without taking up a lot of class time.

Self-contained online course are generally asynchronous in nature, since students have the liberty to proceed through the presented material at their individual speed. Real time communication in chat rooms is much harder to accomplish under such circumstances. Students in this setting must be self-motivated and feel comfortable about doing things on their own without measuring themselves to a set group of peers. Computer corrected exercises and exams become more important as does a very well conceptualized content area.

### 4.2 Tool vs. Tutor

Current cultural information can be more easily integrated into the class using a variety of links. Using links in this fashion is a good example of how the computer is used as a tool. Students can look up information by using the computer, and the computer does not evaluate

their action in any way. WebCT has many tools like this. The use of all the communication tools is value-free; it is up to the instructor to attach value judgement on the quality of contributions. This is an area that could be improved; it would be beneficial if the computer could give students feedback on grammatical correctness or could even respond to the student as to avoid delays in feedback. That would open up more options for both students and teachers.

The content area is a tool in principle, but some of the "bells and whistle" reach over into the tutor function. The computer is used as a tutor, when is evaluates the student's actions and thus in some way replaces the instructor. The self-test questions, for example let the student know immediately whether the response was correct of incorrect; even though it was the instructor who programmed the feedback, it is the computer which relates it to the student. Students can use the computer as a tutor foremost in the quiz section, since exercises and exams can be computer corrected and thereby "bypass" the instructor.

In general it is unlikely that any student will use WebCT only as a tool or only as a tutor, unless the instructor chooses the use WebCT exclusively as one or the other. However, individual students might have different levels of confidence in the computer as a tutor and prefer the personal touch of the instructor. Those students might prefer using the computer as a tool and just have their teacher be their tutor. Other students might really like the tutor functions of the computer, because it allows them to do their homework or practice grammar at any time of day and get instant feedback without having to wait for their instructor. The way in which students use the computer also depends on the ways the instructor conceptualized the class, but WebCT can function both as a tool and as a tutor.

## 5. Summary

"WebCT is [a] tool that facilitates the creation of sophisticated World Wide Web-based educational environments" (Goldberg 97). This paper has introduced the main features of WebCT and their application in CALL. Overall, WebCT lends itself to the presentation of foreign language materials such as grammar, texts, cultural notes as well as exercises and exams. Links can connect the students to current, real-world cultural information and video and audio files can further enhance course materials. Computer corrected exercises and exams free up the instructor's time for individual attention to students and at the same time enables students to practice on their own time while receiving immediate feedback. WebCT also has three distinct tools to practice communication among students and between students and the instructor. Even though the bulletin board, the e-mail and the chat rooms are all based on written communication, especially e-mail and the chat rooms resemble verbal interaction and offer valuable non-threatening opportunities for students to practice their language skills.

WebCT does not expect every instructor to become an expert programmer, but they receive the tools to create their online materials and design the look and feel of their courses according to their own needs. The time needed to develop a WebCT class largely depends on the teachers' skills as well as whether the class will be supplemental or self-contained. The way the teacher conceptualizes the class determines the way the students will use the computer. Generally speaking, WebCT can be used as a tool or as a tutor, but in most cases there will be a combination of the two. Students interact with the computer some of the time and receive feedback from the computer as their tutor. At other times students only use the computer to look up information or use the communication tools and other students or the instructor offer feedback.

The WebCT team is very open to suggestions as to how to make their product better suited for instructors' needs. Language teachers need to get involved in the discussion and voice the special demands that they place on Internet tools to more effectively teach computers to assists language learning.

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Top Class information http://www.wbtsystems.com/

Real Education information http://realeducation.com/

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